

DARIA SIEKHAUS. PH.D.

Address: Institute of Science and Technology (IST) Austria
Am Campus 1
Bertalanffy Building
3400 Klosterneuburg
Austria

Telephone: 0043 664 886 876 96

E-mail: daria.siekhaus@ist.ac.at

Birthplace: Berkeley, California, United States

Nationality: USA

Languages: English; native, German; fluent

EDUCATION:

Stanford University, Department of Biochemistry, Stanford, CA, Ph.D. 08.01.1998

Harvard and Radcliffe Colleges, Cambridge, MA, B.A. in Biology, *magna cum laude*, 1987

RESEARCH EXPERIENCE:

Assistant Professor - IST Austria. *Jan 2012- present*

Research Scientist – New York University Medical Center, Skirball Institute, Dept. of Developmental Genetics

Advisor: Ruth Lehmann, Ph.D. *Understanding the mechanism of invasive migration in Drosophila immune cells. 2003-2011*

Post-doctoral Fellow – University of California Berkeley, Dept. of Molecular Cell Biology

Advisor: David Drubin, Ph.D. *Understanding the interpretation of chemotropic gradients in S. cerevisiae through cell biological and genetic analyses. 1999-2003*

Graduate Student – Stanford University, Dept. of Biochemistry

Advisors: Robert S. Fuller, Ph.D., Mark A. Krasnow, M.D. Ph.D. *Identification, and genetic and functional characterization of the neuropeptide and prohormone processing proteases in Drosophila involved in hatching behavior at the end of embryogenesis. 1989-1998*

Deutscher Akademischer Austauschdienst Fellow – Max Planck Institute for Biophysical Chemistry, Göttingen, Germany

Advisor: Peter Gruss, Ph.D. *Expression, purification and biochemical characterization of the murine neuron specific zinc finger gene, Zfp-2. 1987-1989*

Undergraduate Research – Harvard Medical School, Dept. of Microbiology

Advisor: Roberto Kolter, Ph.D. *Deletion analysis of a stationary phase promoter in E. coli. 1986-1987*

HONORS AND AWARDS:

- Elected as European Representative to the international *Drosophila* board (2022)
- Highlighted as one of the best reviewers for Dev Cell in Cell article on Excellence in Peer Review (2019)
- Lennart Philipson Prize for Outstanding Post-doctoral Talk, Skirball Institute Retreat (2009)
- Lennart Philipson Prize for Outstanding Poster, Skirball Institute Retreat (2005-2008)
- BIOMASS Community Service Award (1997)
- Hormonal and Neuropeptide Biosynthesis Gordon Conference Award for 10 best posters (1996)
- National Science Foundation Graduate Fellowship Finalist (1989)

- Elizabeth Cary Agassiz Scholar (1984-1986)
- Harvard College Scholarship (1984-1986)

RESEARCH GRANTS TO ME AND MY LAB:

- NFB Grant (2017-2020)
- FWF Stand Alone Grant (2016-2019)
- Marie Curie Career Integration Grant (2013-2015)
- NIH Fellowship for Scientists with Disabilities (2003-2006)
- National Research Service Award Post-doctoral Grant (2000-2003)
- Max Planck Gesellschaft Fellowship (1988)
- Deutscher Akademischer Austauschdienst Fellowship (1987)

Postdoctoral Fellowships:

Aparna Ratheesh Marie Curie, IIF (2013-2015)
Maria Akhmanova Lise Meitner, FWF (2018-2019)

Doctoral Fellowships:

Katka Hribikova Valoskova Austrian Academy of Sciences, DOC (2015-2017)
Stephanie Wachner Austrian Academy of Sciences, DOC (2017-2020)

Total grant money awarded to my lab was over 1.2 million Euros. My lab also received core funding of 250,000 Euros per year. In 2019 IST increased this to 350,000 Euros per year.

I have received 75% of the grants I applied for, and the people in my lab had a 50% success rate in applying for post doctoral and doctoral fellowships.

INVITED TALKS:

*Plenary Session at European Drosophila Research Conference, Lyon, France 2021 (postponed till 2023)
Developmental Mechanics Workshop, Drosophila Research Conference virtual part of San Diego, USA conference, 2022*

Department of Biological Sciences Seminar Series, University of Maryland, Baltimore, MD, USA virtual version

Infection Immunity and Cardiovascular Disease Seminar Series, Sheffield University, UK, 2021

Memorial Sloan Kettering Immunology Program Seminar Series, New York, NY, USA 2019

Department of Developmental Genetics Seminar Series, Skirball Institute, NYU School of Medicine, NY, NY, USA 2019

Department of Biological Sciences, University at Albany, State University of New York, Albany, NY USA 2019

GRK 2213: Membrane Plasticity in Tissue Development and Remodeling, Marburg, Germany, 2019

MRC London Institute of Medical Sciences Seminar Series, Imperial College London, UK, 2019

New Directions in Drosophila Blood Cell Biology, Klosterneuburg, Austria 2018

Cells in Motion International Max Planck Research Graduate School Meeting, Münster Germany 2017

Austria-Japan Joint Meeting on understanding the logic of developmental dynamics, IST Austria 2016

Department of Developmental Genetics, Skirball Institute, NYU School of Medicine, NY, NY, USA 2016

New Directions in Drosophila Blood Cell Biology, Woods Hole, MA USA 2016

Cells in Motion Münster, Münster, Germany, 2015

European Molecular Biological Laboratories, Heidelberg, Germany 2015

MD Anderson Department of Genetics, 2015, Houston, TX, USA 2015

Gordon Conference on Directed Cell Migration, Galveston, TX, USA 2015

Department of Cell and Tissue Biology, University of California, San Francisco, CA, USA 2014

Junior European Drosophila Investigators Meeting, Carry Le Rouet, France 2014

Department of Genetics Seminar Series, Cambridge University, UK 2014

Department of Biological Sciences, University at Albany, State University of New York 2013

Junior European Drosophila Investigators Meeting, Windsor Great Park, UK 2013

Max Planck Institute for Developmental Biology Colloquium Tuebingen, Germany 2013
Westfälische Wilhelms-Universität Münster, SFB Seminar series Muenster, Germany 2013
Osterreichische Gesellschaft für Allergologie & Immunologie Symposium, Klosterneuburg, Austria 2012
Vienna Infection Immunology Researchers- United Symposium Vienna, Austria 2012

TALKS AFTER SELECTION:

American Society of Cell Biology, actin dynamics minisymposium, 2021
Cell Migration Online Seminar Series, 2020
EMBO Conference on Molecular & Developmental Biology of Drosophila, Crete, Greece/online, 2018, 2020
The Allied Genetics Conference, Washington DC, USA (virtual version) 2020
Cambridge University, Department of Genetics, Cambridge, England 2020
Imperial College, Department of Life Sciences, London, England, 2019
Gordon Conference on Directed Cell Migration, Galveston, TX, USA, 2019
ASCB/ EMBO Meeting Minisymposium on Patterning Tissue Morphogenesis San Diego, USA 2018
25th European Drosophila Research Conference, London, UK, 2017
8th Abercrombie Meeting, Oxford, UK, 2017
Drosophila Research Conference Early PI forum, San Diego, CA USA 2017
Vienna Biocenter Recess, Schloss Hernstein, Austria, 2017
Gordon Conference on Directed Cell Migration, Galveston, TX USA 2017
24th European Drosophila Research Conference, Heidelberg, Germany 2015
Vienna Biocenter Recess, Schloss Hernstein, Austria, 2015
Ipsen Foundation Exciting Biologies Conference: Biology of Boundaries, Savudrija, Croatia 2013
22nd European Drosophila Research Conference, Lisbon, Portugal 2011
Institute of Science and Technology, Vienna, Austria 2011
Experimental Immunology Branch, National Cancer Institute, NIH, Bethesda, MD USA 2011
Department of Biology, Emory University, Atlanta, GA, USA 2011
Department of Human Genetics, University of Utah School of Medicine, Salt Lake City, UT USA 2011
Section of Cell and Developmental Biology, UC San Diego, La Jolla, CA USA 2011
American Society of Cell Biology, Philadelphia, PA USA 2010
Drosophila Research Conference, Chicago, IL USA 2009
Gordon Conference on Developmental Biology, Andover, NH, USA 2007
Drosophila Research Conference, Washington D.C., USA 2004
Yeast Cell Biology Conference, Cold Spring Harbor, NY USA 2001

PUBLICATIONS IN REVISION/ REVIEW:

Enshoji, M., Miyano, M., Yoshiada, N., Kunihiro, M., Nagano, M., **Siekhaus D.E.**, Toshima, J.Y. and Toshima, J. Yeast Eps15-like protein Pan1p serves as a master regulator of the late stages of yeast endocytic pathway
In revision at Journal of Cell Biology.

PUBLICATIONS IN JOURNALS OR IN PRESS:

Akhmanova, M., Emtenani, S., Krueger, D., Gyoergy, A., Guarda, M., Vlasov, M., Vlasov, F., Akopian, A., Ratheesh, A., De Renzis, S., **Siekhaus, D.E.** Cell division in tissues enables macrophage infiltration (2022) *Science* **376**, 394-6.

Highlighted in the “In Science Journals” section and featured on the Science website
<https://www.science.org/doi/10.1126/science.abj0425>

Martin, E., Blatt, P., Pocchiari, T., Fuchs, G., Emtenani, S., **Siekhaus, D.E.**, Rangan, P., A translational control module coordinates germline stem cell differentiation with ribosome biogenesis during *Drosophila* oogenesis. (2022) *Developmental Cell* 57(7):883-900.e10
<https://pubmed.ncbi.nlm.nih.gov/35413237/>

Emtenani, S., Martin, E., Gyoergy, A., Bicher, J., Genger, J.W., Hurd, T.R., Koecher, T., Berthaler, A., Rangan, P., **Siekhaus, D.E.** Macrophage mitochondrial bioenergetics and tissue invasion are promoted by an Atossa-Porthos axis in *Drosophila* (2022) *The EMBO Journal* e109049
<https://www.embopress.org/doi/full/10.15252/embj.2021109049>

Highlighted in an EMBO J. News and Views

Roblek, M., Bicher, J., van Gogh, M., Gyoergy, A., Seebock, R., Szulc, B., Damme, M., Olczak, M., Bursig, L., **Siekhaus, D.E.**, The solute carrier MFSD1 decreases β 1 Integrin's activation status and thus metastasis (2022) *Frontiers in Oncology* 12, 777634
<https://www.frontiersin.org/articles/10.3389/fonc.2022.777634/full>

Belyaeva, V., Wachner, S., Gyoergy, A., Emtenani, S., Gridchyn, I., Akhmanova, M., Linder, M., Sibilia, M., **Siekhaus, D.E.** Fos regulates macrophage infiltration against surrounding tissue resistance by a cortical actin-based mechanism in *Drosophila*. (2022) *PLOS Biology* 20(1): e3001494
<https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3001494>.

highlighted in Faculty Opinions, PreLights, on PLOS Bio website, and in tweet by the Lasker Foundation

Inglés-Prieto, A., Furthmann, N., Crossman, S.H., Tichy, A.M., Hoyer, N., Petersen, M., Zheden, V., Biebl, J., Reichart, E., György, A., **Siekhaus, D.E.**, Soba, P., Winklhofer, K.F., Janovjak, H. Optogenetic delivery of trophic signals in a genetic model of Parkinson's disease. (2021) *PLOS Genetics* 17(4):e1009479

Kierdorf, K., Hersperger F., Sharrock, J.A., Vincent, C.M., Ustaoglu, P., Dou, J., Gyoergy, A., Gross, O., **Siekhaus, D.E.**, Dionne, M.S. Muscle function and homeostasis require macrophage-derived cytokine inhibition of AKT activity in *Drosophila*. (2020) *Elife* e51595
<https://doi.org/10.7554/Elife.51595>

Nagano, M., Toshima, J.Y., **Siekhaus, D.E.**, Toshima, J. Rab5-mediated endosome formation is regulated at the *trans*-Golgi network. (2019) *Communications Biology* 2:419

Valoskova, K., Biebl, J., Roblek, M., Emtenani, S., Gyoergy, A., Misova, M., Ratheesh, A., Shkarina, K., Larsen, I.S.B., Vakhrushev, S.Y., Clausen, H., **Siekhaus, D.E.** (2019) A conserved MFS orchestrates a subset of O-glycosylation to facilitate macrophage dissemination and tissue invasion. *Elife* e41801 <https://doi.org/10.7554/eLife.41801>

highlighted in Elife Digests, PreLights and Faculty of 1000 Prime

Trebuchet, G., Cattenoz, P., Zsomboki, J., Mazaud, D., **Siekhaus, D.E.**, Fanto, M., and Giangrande, A. (2019) The Repo homeodomain transcription factor suppresses hematopoiesis in *Drosophila* and preserves the glial fate. *J. Neuroscience* 39(2):238-255.

Ratheesh, A., Biebl, J., Vesela, J., Smutny, M., Papusheva, E. Krens, S.F.G, Kaufmann, W., Gyoergy, A., Casano, A.M., **Siekhaus D.E.** (2018) *Drosophila* TNF modulates tissue tension in the embryo to facilitate macrophage invasive migration. *Developmental Cell* 45(3):331-346
[https://www.cell.com/developmental-cell/fulltext/S1534-5807\(18\)30277-6](https://www.cell.com/developmental-cell/fulltext/S1534-5807(18)30277-6)

highlighted three times in Faculty of 1000 Prime

Gyoergy, A., Roblek, M., Ratheesh, A., Valoskova, K., Belyaeva, V., Wachner, S., Matsubayashi, Y., Sanchez-Sanchez, B.J., Stramer, B., and **Siekhaus D.E.** (2018) Tools allowing independent visualization and genetic manipulation of *Drosophila melanogaster* macrophages and surrounding tissues. *G3 (Bethesda)* 8(3):845-857

<https://academic.oup.com/g3journal/article/8/3/845/6027144>

(The strains in this paper have been accepted at Bloomington Stock Center and have been requested by >75 labs worldwide)

Yamamoto, W., Wada, S., Nagano, M., Aoshima, K., **Siekhaus, D.E.**, Toshima, J.Y., and Toshima, J. (2017) Distinct roles for plasma membrane PtdIns(4)P and PtdIns(4,5)P₂ during yeast receptor-mediated endocytosis. *J. Cell Science* 131(1) doi:10.1242/jcs.207696

Matsubayashi, Y., Louani, A., Dragu, A., Sánchez-Sánchez, B.J., Serna-Morales, E., Yolland, L., Gyoergy, A., L Vizcay, G., Fleck, R.A., Heddleston, J.M., Chew, T.L., **Siekhaus D.**, Stramer B. (2017) A moving source of matrix components is essential for *de novo* basement membrane formation. *Current Biology* 27(22):3526-34

Toshima, J.Y., Furuya, E., Nagano, M., Kanno, C., Sakamoto, Y., Ebihara, M., **Siekhaus, D.E.**, Toshima, J. (2016) Yeast Eps-like endocytic protein Pan1p regulates the interaction between endocytic vesicles, endosomes and the actin cytoskeleton. *Elife* e10276

Toshima, J.Y., Horikomi, C., Okada, A., Hatori M.N., Nagano, J., Masuda, A., Yamamoto, W., **Siekhaus D.E.**, and Toshima, J. (2016) Srv2/CAP is required for polarized actin cable assembly and patch internalization during clathrin-mediated endocytosis. *J Cell Science* 129(2):367-79

Ratheesh, A., Belyaeva, V., **Siekhaus, D.E.** (2015) *Drosophila* immune cell migration and adhesion during embryonic development and larval immune responses. *Current Opin Cell Biol* 36:71-7

Kawada, D., Kobayashi, H., Tomita, T., Nakata E., Nagano, M., **Siekhaus, D.E.**, Toshima, J.Y., Toshima, J. (2015) The yeast ARF-GAP Glo3p is required for the endocytic recycling of cell surface proteins. *Biochem Biophysica Acta* 1853(1):144-156

Toshima, J.Y., Nishinoaki, S., Sato, Y., Yamamoto, W., Furukawa, D., **Siekhaus D.E.**, Sawaguchi, A. and Toshima, J. (2014) Bifurcation of the endocytic pathway into Rab5 dependent and independent transport to the vacuole. *Nature Communications* 5:3498

DeGennaro, M.*, Hurd, T.*, **Siekhaus, D.**, Biteau, B., Jasper, H. and R. Lehmann. (2011) Peroxiredoxin stabilization of E-cadherin promotes primordial germ cell adhesion. *Developmental Cell* 20(2):233-243
*authors contributed equally

Siekhaus, D., Haesemeyer, M., Moffitt, O. and Lehmann, R. (2010) RhoL controls invasion and Rap1 localization during immune cell transmigration in *Drosophila*. *Nature Cell Biology* 12(6):605-610

Kunwar, P.S., **Siekhaus, D. E.** and Lehmann, R. (2006) In vivo migration: a germ cell perspective. *Ann Rev of Cell and Develop Biology* 22:237-65

Siekhaus, D.E. and Drubin, D.G. (2003) Spontaneous receptor-independent heterotrimeric G protein signaling in an RGS mutant. *Nature Cell Biology* 5(3):231-5
highlighted in Faculty of 1000

Rayburn, L.Y.M., Gooding, H.C. Choksi, S.P., Maloney, D., Kidd, A.R., **Siekhaus, D.E.** and Bender, M. (2003) *amontillado*, the *Drosophila* homolog of the prohormone processing protease PC2, is required during embryogenesis and early larval development. *Genetics* 163(1):227-237

Daria Siekhaus, Ph.D.

Hwang J.R., **Siekhaus D.E.**, Fuller R.S., Taghert P.H. and Lindberg I. (2000) Interaction of *Drosophila melanogaster* Prohormone Convertase 2 and 7B2. Insect Cell-Specific Processing and Secretion. *J Biological Chemistry* 275(23):17886-17893

Siekhaus, D.E. and Fuller, R.S. (1999) A role for *amontillado*, the *Drosophila* homolog of the neuropeptide precursor processing protease PC2, in hatching behavior. *J Neurosci* 19: 6942-6

PAPERS IN PROGRESS:

Wachner, S., Emtenani, S., Belyaeva, V., Gyoergy, A., Pereira Guarda, M., Cochella, L., Catennoz, P. Giangrande, A., Siekhaus D.E., BMP signaling specifies one of 9 macrophage subpopulations in the early *Drosophila* embryo to lead tissue invasion.

Akhmanova, M., Cuvelier, M, Pesek, J., **Siekhaus, D.E.**, Smeets, B. Modeling the mechanical microenvironment of the cell migrating in confluent tissue

Toshima, J., Tsukahara, A., Nagano, M., **Siekhaus, D.**, Toshima, J. A Tlg2p-resident compartment adjacent to the trans-Golgi network directly receives endocytic vesicles and functions as a cargo sorting station.

SCIENTIFIC SERVICE:

Committees

Member of the Search Committee for new Principal Investigators at the Center for Molecular Medicine, Vienna, 2014, 2019

European Representative to the international *Drosophila* board that coordinates resources and activities of the *Drosophila* community (2022-4)

Conferences

Co-organizer of the New Directions in *Drosophila* Blood Cell Biology Conference at IST Austria with Prof. Angela Giangrande of University of Strasbourg, France and Prof. K. Brueckner of University of California San Francisco, USA, September 2018

Instigator and Co-organizer of the Special Interest Subgroup on “Cells Migrating in Complex Environments”, American Society of Cell Biology/ European Molecular Biology Organization Annual Meeting, virtual version, with Andy Ewald, Johns Hopkins University and David Sherwood, Duke University, Dec 2020

Session Chair, New paradigms of organelle regulation and function. 62nd Annual *Drosophila* Research Conference, March 2021

Reviewer for funding agencies

European Research Council advanced grants

Molecular Research Council (UK)

Sir Henry Dale Fellowship, Royal Society and Wellcome Trust (UK)

Biotechnology and Biological Sciences Research Council (UK)

Agence National de la Recherche (France)

Gutenberg Chair (France)

Houska Prize (Austria)

Reviewer for journals

Daria Siekhaus, Ph.D.

Cell Reports, Development, Developmental Cell, Elife, FEBS Journal, Journal of Cell Biology, Journal of Cell Science, Journal of Visual Experiments, Nature Communications, PLOS Genetics, PLOS One, PNAS, Science Advances

TEACHING EXPERIENCE:

- Developed and taught course on Cell Migration, IST Austria, 2017, 2019
- Developed and taught Core Track Course in Cell and Developmental Biology, IST Austria, 2016, 2021
- Developed and taught Cell Biology, IST Austria, 2013, 2014, 2015
- Teaching assistant for Innate Immunology section of Intro to Immunology, NYUSOM, 2009
- Teaching assistant for Genetics section of Foundations, NYUSOM, 2005-2009
- Initiated and supervised Drubin Lab Cell Biology Journal Club, 1999-2002
- Teaching Assistant Graduate Biochemistry, Stanford University, 1989-1990
- Tutored high school student with Upward Bound who then was accepted at Stanford, 1992-1995

THESES SUPERVISED:

- Vera Belyaeva, 2018
Transcriptional regulation of macrophage invasion in the *Drosophila melanogaster* embryo
Present Position: Lead Customer BioResearch at Molecular Devices, Salzburg, Austria
- Katka Valoskova, 2019
The role of a highly conserved major facilitator superfamily member in *Drosophila* embryonic macrophage invasion
Presently on maternity leave
- Shamsi Emtenani, 2020
Metabolic regulation of *Drosophila* macrophage tissue invasion
Currently finishing revisions of paper, starting post doc at IMBA in Knoeblich lab, Vienna, Austria, spring 2022
- Stephanie Wachner, 2022
Transcriptional programs that define a macrophage subpopulation as invasive leader cells
Present Position: Medical Manager at Pfizer GmbH Austria

OTHER TRAINEES:

Post-doctoral Fellows:

Aparna Ratheesh 2012-2018

Present Position: Assistant Professor, Centre for Mechanochemical Cell Biology, University of Warwick, UK

Marko Roblek 2016-

Maria Akhmanova 2018-

Interns:

Julia Salapa, Jan-September 2017, Bachelor's Student Thesis

Present Position: Graduate student at TU Wien in Medical Physics

Irene Argudo-Garcia, Jan-Aug 2016, Post Master's Intern,

Present Position: PhD student at the Champalimaud Centre for the Unknown, Lisbon, Portugal

Gemma Puixeu Sala, Jan-May, 2016, Bachelor's level ISTern, June-August 2016

Present Position: PhD student in Barton and Vicoso's labs at IST Austria

Adam Szabo, Jan-May 2015, Post Master's Intern

Present Position: Clinical Research Associate at Quintiles Gesmbh, Austria

Kateryna Shkarina June-Aug 2014 Master's ISTern, Sept 2015-Feb 2016, Post Master's Intern

Present Position: Ph.D level Research Associate. in the Broz Lab in the Dept of Biochemistry at the University of Lausanne, Switzerland

Matthew Doerfler, July-Dec 2013 ISTern, March-July 2015, Bachelor's level Intern

Present Position: Medical Resident in Child Neurology, Northwestern University

Daria Siekhaus, Ph.D.

Antonia Sikhegyi, June-Aug 2013 Bachelor's level ISTern

Finished her Master's degree at Pazmany Peter Catholic University, Hungary

Direnis Cayli, June-Sept 2012, Bachelor's level Intern

Present Position: *Ph.D. student in Falkenberg lab at Gothenberg University, Dept of Medical Biochemistry and Cell Biology at the Institute of Biomedicine*

At NYU:

Olivia Moffitt, Undergraduate student, August 2008-2011

Present position: Psychiatrist, Houston, Texas

Doris-Lou Demy, Undergraduate student, April-August 2007

Present position: Researcher, Institut Pasteur

Martin Haesemeyer, Masters (Diplom) student, 2005-2006

Present position: Assistant Professor, Ohio State University, 2020-

ADMINISTRATIVE AND MANAGERIAL ACTIVITIES AND SERVICE AT IST AUSTRIA:

Graduate Student Issues:

- *Graduate student selection* (all professors are invited to be involved)-participated 2012-2017, ranking 70-250 student applications (the higher number in the earlier years) and participating in a two day interview process.
- *Graduate student recruitment visit day*-Gave talk on the research of the cell biology and biophysics groups, fall 2012, met with students to talk about my lab's work, 2013-5
- *Graduate student interview visit day*- Gave talk providing an overview of the research of the cell biology and biophysics groups, Spring 2012
- *Task force on potential changes to the Graduate program*-member 2014
- *Improving Student Recruiting Committee*-member 2015-7

Organizing Seminars and fostering other scientific interactions:

- *Institute Colloquium*-Sole Organizer. Feb 2013-June 2014. I won support from the faculty for new procedures to assure equitable distribution of slots across all of the institute's scientific sectors. With the support of the administration I included food and non-alcoholic drinks as part of the event to facilitate attendance and informal scientific discussion following the lecture
- *Life Sciences Retreat*—With the President's supported, I convinced the biology faculty of the merits of having a joint annual scientific retreat for all of our groups. With Profs. Benkova and Friml I organized this for the first time in Sopron, Hungary from Oct 6-7, 2016; it was attended by 98 participants from 14 IST research groups as well as staff scientists from the life science and bioimaging facilities. It has become an annual event, organized by different professors every year.

Service on IST committees

- Scientific Service Units User group committees:
 - Bioimaging, Life Sciences*: 2012-present
 - Electron Microscopy*: 2015-2017
 - Preclinical Facility*: 2017-present
- Other IST committees:
 - Events committee*-- 2018-present
 - Internal Awards Committee* -- 2017
 - Faculty recruiting*-- 2012-17, rating applications and participating in 5-10 interview visits per year
 - TWIST Fellowship Selection Committee*-- alternate member 2016
 - Staff Scientist Committee*-- 2012-2013
 - ISTernship Committee*-- 2013-2015

Public Outreach activities

IST Austria is funded to a large extent by the Austrian government and the federation of lower Austria and thus must communicate its goals and its successes to the public and government officials. I participated in many outreach activities. IST Austria also has as part of its funding plan the creation of IST sponsored entrepreneurial activities and the receipt of donations; I utilized the connections I could develop in Europe as a member of various alumni clubs to aid in these efforts, resulting in a 1.4 million Euro grant to IST along with bringing many influential Europeans to IST Austria.

Potential donors

- *Veit Sorger, former President of the Industrial association “Industriellenvereinigung” and friends*—talk and lab tour. June 2013
- *Harvard/Stanford Alumni Club Event*—instigated and helped organize a lab tour and dinner. Jan 2014
- *Princeton Alumni Club event*—Gave lab tour, explanation of my lab’s research, and a chance to examine fruit flies under the microscope to 22 alumni. April 2015
- *NOMIS Foundation*—Brought about a visit to IST Austria that I participated in by Markus Reinhard (Managing Director, NOMIS Foundation, Switzerland) and Adam Dixon (Managing Director, Ecoenergen GmbH) who I had met at the Vienna Harvard Club. This ultimately resulted in a 1.4 million Euro grant to two physics professors at IST. Sept 2016
- *Giuseppe Zocco (Chair of the Stanford Alumni association chapter Geneva)*—Established contact with Giuseppe at an Alumni Weekend in Geneva at the request of our development officer to facilitate his ability to obtain donations from Switzerland. June 2017

Educators, science administrators and potential students

- *Austrian public school teachers*—gave talk about our research, conducted lab tour and visit to our imaging facility, Aug 2012
- *President of the German Helmholtz Association, Prof. Juergen Mlynek*—Lunch, April 2012
- *Historian Prof. Oliver Rathkolb, University of Vienna*-- Meeting and lunch June 2013
- *EU team studying Innovative Doctoral Training Principles*—participated in discussion, June 2013
- *Chemistry Olympiad students*-- Talk and Campus Tour, June 2013
- *MODUL University Rector, Vice-Rector and Professor*—Meeting and lab tour at IST Austria: Sept 2013
- *Austrian Scientists and Scholars in North America (ASCINA) Network Visit* --Host and co-organizer of Campus Tour, Lab Visit, Nov 2013
- *FH Campus Wien administrator and Group Leaders*---presented our lab’s work in April 2014
- *Representatives of foreign technical universities (part of a meeting of GE4 co-initiated by the French Ministry of Defense* -- Lab tour for May 2016
- *Vienna University Pharmaceutical student society visit*--Talk about our lab’s research and a lab tour April 2016
- *German National Merit Foundation Students “Studienstiftung des Deutschen Volkes*—gave lab tour and hands on microscopy experience, participated in discussion over lunch May 2016
- *IMC Krems’ student visit*—Talk about lab’s research and a lab tour, April 2017

Press

- *Host Mark Hammer from the radio station OE1-ORF*—interview for a daily science program “Dimensionen”, 2012

- *Reporters from the ORF, the Austrian public TV broadcaster*—interview for a popular science program called "Newton" 2012
- *Reporter Franziska Dzugan of the Austrian newsmagazine Profil*—interview for her article on IST Austria "Genies unter sich" 2012
- *Reporter for the Klosterneuburg magazine Erlesen*—interview for an article, 2012
- *Reporter Dardis McNamee for Vienna Review magazine*—interview for feature article published Nov 2013
- *Author of Book "Land schaf(f)t Wissen / Researching the Region"* --Interview and photography session March 2013
- *Reporter for the leading Austrian newspaper Der Standard*--interview for an article about our project on metastasis and its funding by an NFB grant, Sept 2017
- *Team from lower Austrian TV station P3TV*—interview about lab's research, Sept 2018

Politicians

- *Minister for women and the civil service, Gabriele Heinisch-Hosek*—gave lab tour 2012
- *Member of Austrian Parliament for the Green Party and City of Vienna's Commissioner for Universities and Research, Alexander van der Bellen*—met for lunch 2012
- *Dr. Andreas Mailath-Pokorny, Executive City Councilor for Cultural Affairs and Science of the City of Vienna, Prof. Alexander Van der Bellen, Commissioner for Universities and Research of the City of Vienna, and Mag. Robert Kogler, assistant to • Prof. Van der Bellen*, discussion at the Viennese mayor's welcome event for foreign scientists March 2013
- *Director General for Cultural Policy, Federal Ministry for European and International Affairs, Dr. Martin Eichtinger*. met April 2014
- *US Ambassador to Austria Alexa Wesner*—facilitated her coming to IST Austria by talking to her at a Harvard Club event about the institute. Lab tour and lunch with the Ambassador and Stephanie P. Lyons from the Economic-Political Section during their visit to IST in March 2014
- *Austrian Ambassador to the US Wolfgang Waldner and Marcus Bergmann from BMEIA (the Austrian ministry for Europe, Integration and foreign affairs)*--met during their visit at IST Austria in July 2015
- *EU Education and Culture Division representative Françoise Wilkens*--met during his visit at IST Austria in Sept 2015
- *Spokesperson for science and technology of the Green Party and member of the Austrian Parliament, Ruperta Lichtenegger*—discussion May 2016
- *Federal Chancellor of Austria, Christian Kern*—discussion during visit Aug 2016
- *US Ambassador to Austria Trevor Traina*—Lunch Dec 2018

General Public

- *Open Campus Day Kids Book*--profiled in cartoon section called "the animated fruit fly" (Die Animierte Fruchtfliege) 2012
- *IST informational video on Developing IST Austria* – talked about students and curiosity. 2012
- *Open Campus Day*—showed visitors at two microscope stations how to view adult flies and fluorescent embryos, May 2012
- *Vienna Review Salon at the Expat Center*—gave talk on "Why *Drosophila* is a good system to study and what it is like to work at IST" Nov 2013
- *Open Campus Day* --presented an introduction into the world of the fruit fly and its genetics, then showed adult flies and fluorescent embryos at 6 microscope stations for successive tours of visitors to my lab Spring 2013-2019

REFERENCES:

Dr. Ruth Lehmann
Director
Whitehead Institute
455 Main Street, Cambridge, MA 02142
United States
Lehmann@wi.mit.edu
Tel: 1-917-207-7083

Dr. Jason Cyster
HHMI Professor/ University of California at San Francisco
513 Parnassus Ave, HSE-1001A San Francisco, CA 94143.
United States
jason.cyster@ucsf.edu
1-415-502-6638

Dr. Dan Littman
HHMI Professor/ NYU School of Medicine
430 East 29th St, Room 403
New York, NY 10016
dan.littman@nyulangone.org
1-212-263-7520